



## SEQUENCE LISTING

<110> James, Kenneth D.  
Rahdakrishnan, Balasingham  
Malkar, Navdeep B.  
Miller, Mark A.  
Ekwuribe, Nnochiri N.

<120> NATRIURETIC COMPOUNDS, CONJUGATES, AND USES THEREOF

<130> 9233.108

<140> US 10/723,933  
<141> 2003-11-26

<150> US 60/429,151  
<151> 2002-11-26

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<170> PatentIn version 3.2

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Cys

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Cys

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Ser Ser Ser Ser

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Lys Ser Ser Ser  
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Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Cys Phe Gly Arg Xaa Met  
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Asp Arg Ile Ser Ser Ser Ser Gly Leu Gly Cys Xaa Xaa Xaa Xaa Xaa  
 20 25 30

Xaa

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Pro Xaa Met Val Gln Gly Ser Gly  
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Arg Val Leu Arg Arg  
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Ser	Ser	Ser	Ser	Gly	Leu	Gly	Cys	Xaa
				20				25

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Val	Leu	Arg	Arg	His
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Val Leu Arg Arg  
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Cys Xaa

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Leu His Leu Ala Phe Leu Gly Gly Arg Ser His Pro Leu Gly Ser Pro  
20 25 30

Gly Ser Ala Ser Asp Leu Glu Thr Ser Gly Leu Gln Glu Gln Arg Asn  
35 40 45

His Leu Gln Gly Lys Leu Ser Glu Leu Gln Val Glu Gln Thr Ser Leu  
50 55 60

Glu Pro Leu Gln Glu Ser Pro Arg Pro Thr Gly Val Trp Lys Ser Arg  
65 70 75 80

Glu Val Ala Thr Glu Gly Ile Arg Gly His Arg Lys Met Val Leu Tyr  
85 90 95

Thr Leu Arg Ala Pro Arg Ser Pro Lys Met Val Gln Gly Ser Gly Cys  
100 105 110

Phe Gly Arg Lys Met Asp Arg Ile Ser Ser Ser Ser Gly Leu Gly Cys  
115 120 125

Lys Val Leu Arg Arg His  
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Gln Gly Ser Gly  
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Val Gln Gly Ser Gly  
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Lys Met Val Gln Gly Ser Gly  
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Pro Lys Met Val Gln Gly Ser Gly  
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Leu His Leu Ala Phe Leu Gly Gly Arg Ser His Pro Leu Gly Ser Pro





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Lys Val Leu Arg Arg His  
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Arg Ile Ser Ser Ser Ser Gly Leu Gly Cys Lys Val Leu Arg Arg His  
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<222> (26)..(26)

<223> Amino acid may be present or absent

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Gly	Leu	Gly	Cys	Asn	Xaa	Leu	Arg	Xaa	Tyr
			20					25	

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Asn	Val	Leu	Arg	Arg	Tyr
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Arg Ile Lys Met Xaa Ser Xaa Ser Gly Leu Gly Cys  
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<220>  
<221> MISC\_FEATURE  
<222> (4)..(4)  
<223> Xaa may be Thr or Met

<220>  
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<222> (5)..(5)  
<223> Xaa may be Met or Val

<220>  
<221> MISC\_FEATURE  
<222> (6)..(6)  
<223> Xaa may be Arg, His, or Gln

<220>  
<221> MISC\_FEATURE  
<222> (7)..(7)  
<223> Xaa may be Asp, Lys, or Gly

<400> 47

Ser Pro Lys Xaa Xaa Xaa Xaa Ser Gly  
1 5

<210> 48  
<211> 4  
<212> PRT  
<213> Artificial sequence

<220>  
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<220>  
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<222> (1)..(1)  
<223> Xaa may be Asn or Lys

<400> 48

Xaa Val Leu Arg  
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<210> 49  
<211> 5  
<212> PRT  
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<220>



<223> Natriuretic peptide sequence

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<222> (1)..(1)

<223> Xaa may be Asn or Lys

<220>

<221> MISC\_FEATURE

<222> (5)..(5)

<223> Xaa may be Arg or Lys

<400> 49

Xaa Val Leu Arg Xaa

1 5

<210> 50

<211> 6

<212> PRT

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<222> (1)..(1)

<223> Xaa may be Asn or Lys

<220>

<221> MISC\_FEATURE

<222> (5)..(5)

<223> Xaa may be Arg or Lys

<220>

<221> MISC\_FEATURE

<222> (6)..(6)

<223> Xaa may be Tyr or His

<400> 50

Xaa Val Leu Arg Xaa Xaa

1 5

<210> 51

<211> 26

<212> PRT

<213> Artificial sequence

<220>

<223> Natriuretic peptide

<220>  
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 <222> (21)..(21)  
 <223> Xaa cannot be Asn if amino acid 25 is Arg and amino acid 26 is Tyr

<220>  
 <221> MISC\_FEATURE  
 <222> (25)..(25)  
 <223> Xaa cannot be Arg if amino acid 21 is Asn and amino acid 26 is Tyr

<220>  
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 <222> (26)..(26)  
 <223> Xaa cannot be Tyr if amino acid 21 is Asn and amino acid 25 is Arg

<400> 51

Asp	Ser	Gly	Cys	Phe	Gly	Arg	Arg	Leu	Asp	Arg	Ile	Gly	Ser	Leu	Ser
1				5				10						15	

Gly	Leu	Gly	Cys	Xaa	Val	Leu	Arg	Xaa	Xaa
			20					25	

<210> 52  
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<220>  
 <223> Natriuretic peptide sequence

<400> 52

Asn	Val	Leu	Arg	Arg	Tyr
1				5	

<210> 53  
 <211> 32  
 <212> PRT  
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<220>  
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<220>  
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 <222> (1)..(9)  
 <223> Polypeptide may be present or absent

<220>  
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 <222> (7)..(9)  
 <223> Polypeptide may be present or absent

<400> 53

Ser Pro Lys Met Val Gln Gly Ser Gly Cys Phe Gly Arg Lys Met Asp  
 1 5 10 15

Arg Ile Ser Ser Ser Ser Gly Leu Gly Cys Lys Val Leu Arg Arg His  
 20 25 30

<210> 54  
 <211> 9  
 <212> PRT  
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<220>  
 <223> Natriuretic peptide sequence

<400> 54

Ser Pro Lys Met Val Gln Gly Ser Gly  
 1 5

<210> 55  
 <211> 10  
 <212> PRT  
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<220>  
 <223> Leader sequence

<400> 55

His His His His His His Ala Asp Gly Glu  
 1 5 10

<210> 56  
 <211> 4  
 <212> PRT  
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<220>  
 <223> Leader sequence

<400> 56

Ala Asp Gly Glu  
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<210> 57  
<211> 8  
<212> PRT  
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<220>  
<223> Spacer sequence

<400> 57

Arg Arg Asp Ala Glu Asp Pro Arg  
1 5

<210> 58  
<211> 5  
<212> PRT  
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<220>  
<223> Leader sequence

<400> 58

Glu Gly Asp Arg Arg  
1 5

<210> 59  
<211> 11  
<212> PRT  
<213> Artificial sequence

<220>  
<223> Extension sequence

<400> 59

His His His His His His Glu Gly Asp Arg Arg  
1 5 10

<210> 60  
<211> 8  
<212> PRT  
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<220>  
<223> Spacer sequence

<400> 60

Arg Arg Asp Ala Glu Asp Arg Arg  
1 5

<210> 61

<211> 12  
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 <221> misc\_feature  
 <222> (7)..(7)  
 <223> Xaa can be any naturally occurring amino acid  
  
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His His His His His His Xaa Glu Gly Asp Arg Arg  
 1 5 10

<210> 62  
 <211> 8  
 <212> PRT  
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 <220>  
 <223> Spacer sequence  
  
 <400> 62

Arg Gly Asp Ala Glu Asp Pro Arg  
 1 5

<210> 63  
 <211> 5  
 <212> PRT  
 <213> Artificial sequence  
  
 <220>  
 <223> Leader sequence  
  
 <400> 63

Glu Gly Asp Pro Arg  
 1 5

<210> 64  
 <211> 11  
 <212> PRT  
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 <220>  
 <223> Extension sequence  
  
 <400> 64

His His His His His His Glu Gly Asp Pro Arg  
 1 5 10

<210> 65  
 <211> 9  
 <212> PRT  
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<220>  
 <223> Spacer sequence

<400> 65

Ala Arg Gly Asp Ala Glu Asp Pro Arg  
 1 5

<210> 66  
 <211> 9  
 <212> PRT  
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<220>  
 <223> Extension sequence

<220>  
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 <222> (7)..(7)  
 <223> Xaa can be any naturally occurring amino acid

<400> 66

His His His His His His Xaa Met Met  
 1 5

<210> 67  
 <211> 5  
 <212> PRT  
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<220>  
 <223> Spacer sequence

<400> 67

Asp Asp Ala Gly Glu  
 1 5

<210> 68  
 <211> 10  
 <212> PRT  
 <213> Artificial sequence

<220>  
 <223> Extension sequence  
  
 <400> 68  
  
 His His His His His His Ala Asp Gly Glu  
 1 5 10

<210> 69  
 <211> 4  
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 <213> Artificial sequence

<220>  
 <223> Spacer sequence

<400> 69

Glu Ala Gly Glu  
 1

<210> 70  
 <211> 4  
 <212> PRT  
 <213> Artificial sequence

<220>  
 <223> Leader sequence

<400> 70

Glu Gly Asp Ala  
 1

<210> 71  
 <211> 11  
 <212> PRT  
 <213> Artificial sequence

<220>  
 <223> Extension sequence

<400> 71

Glu Gly Asp Ala His His His His His His Glu  
 1 5 10

<210> 72  
 <211> 11  
 <212> PRT  
 <213> Artificial sequence

<220>

<223> Extension sequence

<400> 72

Glu His His His His His His Ala Asp Gly Glu  
1 5 10

<210> 73

<211> 32

<212> PRT

<213> Homo sapiens

<220>

<221> DISULFID

<222> (10)..(26)

<223> Disulfide bond may be present or absent

<400> 73

Ser Pro Lys Met Val Gln Gly Ser Gly Cys Phe Gly Arg Lys Met Asp  
1 5 10 15

Arg Ile Ser Ser Ser Ser Gly Leu Gly Cys Lys Val Leu Arg Arg His  
20 25 30

<210> 74

<211> 32

<212> PRT

<213> Homo sapiens

<220>

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<222> (1)..(1)

<223> A modifying moiety may be present

<220>

<221> MISC\_FEATURE

<222> (31)..(31)

<223> Xaa is not Arg

<400> 74

Thr Ala Pro Arg Ser Leu Arg Arg Ser Ser Cys Phe Gly Gly Arg Met  
1 5 10 15

Asp Arg Ile Gly Ala Gln Ser Gly Leu Gly Cys Asn Ser Phe Xaa Tyr  
20 25 30

<210> 75

<211> 32



<212> PRT  
<213> Canis familiaris

<220>  
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<222> (3)..(3)  
<223> Xaa can be any naturally occurring amino acid

<220>  
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<222> (7)..(7)  
<223> Xaa can be any naturally occurring amino acid

<220>  
<221> misc\_feature  
<222> (31)..(31)  
<223> Xaa can be any naturally occurring amino acid

<400> 75

Ser	Pro	Xaa	Met	Met	His	Xaa	Gly	Gly	Cys	Phe	Gly	Arg	Arg	Leu	Asp
1				5					10					15	

Arg	Ile	Gly	Ser	Leu	Ser	Gly	Leu	Gly	Cys	Asn	Val	Leu	Arg	Xaa	Tyr
			20					25					30		

<210> 76  
<211> 38  
<212> PRT  
<213> Homo sapiens

<220>  
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<222> (3)..(3)  
<223> Xaa can be any naturally occurring amino acid

<220>  
<221> misc\_feature  
<222> (11)..(11)  
<223> Xaa can be any naturally occurring amino acid

<400> 76

Glu	Val	Xaa	Tyr	Asp	Pro	Cys	Phe	Gly	His	Xaa	Ile	Asp	Arg	Ile	Asn
1				5					10					15	

His	Val	Ser	Asn	Leu	Gly	Cys	Pro	Ser	Leu	Arg	Asp	Pro	Arg	Pro	Asn
			20					25					30		

Ala	Pro	Ser	Thr	Ser	Ala
					35

<210> 77  
 <211> 22  
 <212> PRT  
 <213> Homo sapiens

<400> 77

Gly	Leu	Ser	Lys	Gly	Cys	Phe	Gly	Leu	Lys	Leu	Asp	Arg	Ile	Gly	Ser
1				5					10					15	

Met	Ser	Gly	Leu	Gly	Cys
				20	

<210> 78  
 <211> 28  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (12)..(12)  
 <223> Xaa can be any naturally occurring amino acid

<400> 78

Ser	Leu	Arg	Arg	Ser	Ser	Cys	Phe	Gly	Gly	Arg	Xaa	Asp	Arg	Ile	Gly
1				5					10					15	

Ala	Gln	Ser	Gly	Leu	Gly	Cys	Asn	Ser	Phe	Arg	Tyr
			20				25				

<210> 79  
 <211> 17  
 <212> PRT  
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<220>  
 <223> Natriuretic peptide

<220>  
 <221> MISC\_FEATURE  
 <222> (5)..(5)  
 <223> Xaa may be any amino acid other than Lys

<400> 79

Cys	Phe	Gly	Arg	Xaa	Met	Asp	Arg	Ile	Ser	Ser	Ser	Ser	Gly	Leu	Gly
1				5					10					15	

Cys

<210> 80  
<211> 36  
<212> PRT  
<213> Artificial sequence

<220>  
<223> Natriuretic peptide

<220>  
<221> MISC\_FEATURE  
<222> (27)..(27)  
<223> Xaa may be any naturally occurring amino acid, and may be present or absent

<220>  
<221> MISC\_FEATURE  
<222> (28)..(28)  
<223> Xaa may be any naturally occurring amino acid, and may be present or absent

<220>  
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<222> (29)..(29)  
<223> Xaa may be any naturally occurring amino acid, and may be present or absent

<220>  
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<222> (30)..(30)  
<223> Xaa may be any naturally occurring amino acid, and may be present or absent

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<223> Xaa may be any naturally occurring amino acid, and may be present or absent

<220>  
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<222> (33)..(33)  
<223> Xaa may be any naturally occurring amino acid, and may be present or absent

<220>

<221> MISC\_FEATURE  
 <222> (34)..(34)  
 <223> Xaa may be any naturally occurring amino acid, and may be present  
 or absent

<220>  
 <221> misc\_feature  
 <222> (35)..(35)  
 <223> Xaa can be any naturally occurring amino acid

<220>  
 <221> MISC\_FEATURE  
 <222> (36)..(36)  
 <223> Xaa may be any naturally occurring amino acid, and may be present  
 or absent

<400> 80

Ser	Pro	Arg	Met	Val	Gln	Gly	Ser	Gly	Cys	Phe	Gly	Arg	Lys	Met	Asp
1				5					10					15	

Arg	Ile	Ser	Ser	Ser	Ser	Gly	Leu	Gly	Cys	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa
			20					25					30		

Xaa	Xaa	Xaa	Xaa
			35

<210> 81  
 <211> .6  
 <212> PRT  
 <213> Artificial sequence

<220>  
 <223> Natriuretic peptide sequence

<400> 81

Arg	Val	Leu	Arg	Arg	His
1				5	

<210> 82  
 <211> 32  
 <212> PRT  
 <213> Artificial sequence

<220>  
 <223> Natriuretic peptide

<220>  
 <221> misc\_feature  
 <222> (3)..(3)  
 <223> Xaa can be any naturally occurring amino acid

<220>  
 <221> MISC\_FEATURE  
 <222> (14)..(14)  
 <223> Xaa may be any amino acid other than Lys

<220>  
 <221> misc\_feature  
 <222> (27)..(27)  
 <223> Xaa can be any naturally occurring amino acid

<400> 82

Ser	Pro	Xaa	Met	Val	Gln	Gly	Ser	Gly	Cys	Phe	Gly	Arg	Xaa	Met	Asp
1				5					10					15	

Arg	Ile	Ser	Ser	Ser	Ser	Gly	Leu	Gly	Cys	Xaa	Val	Leu	Arg	Arg	His
			20					25					30		

<210> 83  
 <211> 32  
 <212> PRT  
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<220>  
 <223> Natriuretic peptide

<220>  
 <221> MOD\_RES  
 <222> (1)..(1)

<220>  
 <221> MISC\_FEATURE  
 <222> (14)..(14)  
 <223> Xaa is not Lys

<220>  
 <221> MISC\_FEATURE  
 <222> (27)..(27)  
 <223> Xaa is not Lys

<400> 83

Ser	Pro	Lys	Met	Val	Gln	Gly	Ser	Gly	Cys	Phe	Gly	Arg	Xaa	Met	Asp
1				5					10					15	

Arg	Ile	Ser	Ser	Ser	Ser	Gly	Leu	Gly	Cys	Xaa	Val	Leu	Arg	Arg	His
			20					25					30		

<210> 84  
 <211> 19  
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<213> Artificial sequence

<220>

<223> Natriuretic peptide

<220>

<221> misc\_feature

<222> (1)..(1)

<223> Xaa can be any naturally occurring amino acid

<220>

<221> misc\_feature

<222> (19)..(19)

<223> Xaa can be any naturally occurring amino acid

<400> 84

Xaa Cys Phe Gly Arg Arg Met Asp Arg Ile Ser Ser Ser Ser Gly Leu  
1 5 10 15

Gly Cys Xaa

<210> 85

<211> 10

<212> PRT

<213> Artificial sequence

<220>

<223> Natriuretic peptide sequence

<400> 85

Ser Pro Lys Met Val Gln Gly Ser Gly Cys  
1 5 10

<210> 86

<211> 9

<212> PRT

<213> Artificial sequence

<220>

<223> Natriuretic peptide sequence

<400> 86

Pro Lys Met Val Gln Gly Ser Gly Cys  
1 5

<210> 87

<211> 8

<212> PRT

<213> Artificial sequence

<220>

<223> Natriuretic peptide sequence

<400> 87

Lys Met Val Gln Gly Ser Gly Cys  
1 5

<210> 88

<211> 7

<212> PRT

<213> Artificial sequence

<220>

<223> Natriuretic peptide sequence

<400> 88

Met Val Gln Gly Ser Gly Cys  
1 5

<210> 89

<211> 6

<212> PRT

<213> Artificial sequence

<220>

<223> Natriuretic peptide sequence

<400> 89

Val Gln Gly Ser Gly Cys  
1 5

<210> 90

<211> 5

<212> PRT

<213> Artificial sequence

<220>

<223> Natriuretic peptide sequence

<400> 90

Gln Gly Ser Gly Cys  
1 5

<210> 91

<211> 4

<212> PRT

<213> Artificial sequence

<220>  
<223> Natriuretic peptide sequence  
  
<400> 91

Gly Ser Gly Cys  
1

<210> 92  
<211> 4  
<212> PRT  
<213> Artificial sequence

<220>  
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<400> 92

Ser Pro Lys Met  
1

<210> 93  
<211> 5  
<212> PRT  
<213> Artificial sequence

<220>  
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<400> 93

Ser Pro Lys Met Val  
1 5

<210> 94  
<211> 6  
<212> PRT  
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<400> 94

Ser Pro Lys Met Val Gln  
1 5

<210> 95  
<211> 4  
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<220>  
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<400> 95

Lys Met Val Gln  
1

<210> 96  
<211> 5  
<212> PRT  
<213> Artificial sequence

<220>  
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<400> 96

Lys Met Val Gln Gly  
1 5

<210> 97  
<211> 6  
<212> PRT  
<213> Artificial sequence

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<400> 97

Lys Met Val Gln Gly Ser  
1 5

<210> 98  
<211> 7  
<212> PRT  
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<220>  
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<400> 98

Lys Met Val Gln Gly Ser Gly  
1 5

<210> 99  
<211> 8  
<212> PRT  
<213> Artificial sequence

<220>

<223> Natriuretic peptide sequence

<400> 99

Lys Met Val Gln Gly Ser Gly Cys  
1 5

<210> 100

<211> 6

<212> PRT

<213> Artificial sequence

<220>

<223> Natriuretic peptide sequence

<400> 100

Lys Val Leu Arg Arg His  
1 5

<210> 101

<211> 5

<212> PRT

<213> Artificial sequence

<220>

<223> Natriuretic peptide sequence

<400> 101

Lys Val Leu Arg Arg  
1 5

<210> 102

<211> 4

<212> PRT

<213> Artificial sequence

<220>

<223> Natriuretic peptide sequence

<400> 102

Lys Val Leu Arg  
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<210> 103

<211> 6

<212> PRT

<213> Artificial sequence

<220>

<223> Natriuretic peptide sequence

<400> 103

Arg Val Leu Arg Arg His  
1 5

<210> 104

<211> 5

<212> PRT

<213> Artificial sequence

<220>

<223> Natriuretic peptide sequence

<400> 104

Arg Val Leu Arg Arg  
1 5

<210> 105

<211> 4

<212> PRT

<213> Artificial sequence

<220>

<223> Natriuretic peptide sequence

<400> 105

Arg Val Leu Arg  
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<210> 106

<211> 29

<212> PRT

<213> Artificial sequence

<220>

<223> Natriuretic peptide

<220>

<221> MISC\_FEATURE

<222> (3)..(3)

<223> Xaa is not Lys

<400> 106

Ser Pro Xaa Met Val Gln Gly Ser Gly Cys Phe Gly Arg Lys Met Asp  
1 5 10 15

Arg Ile Ser Ser Ser Ser Gly Leu Gly Cys Lys Val Leu  
20 25

<210> 107  
<211> 26  
<212> PRT  
<213> Artificial sequence

<220>  
<223> Natriuretic peptide

<220>  
<221> MISC\_FEATURE  
<222> (3)..(3)  
<223> Xaa is not Lys

<400> 107

Ser	Pro	Xaa	Met	Val	Gln	Gly	Ser	Gly	Cys	Phe	Gly	Arg	Lys	Met	Asp
1				5				10						15	

Arg	Ile	Ser	Ser	Ser	Ser	Gly	Leu	Gly	Cys
			20				25		

<210> 108  
<211> 33  
<212> PRT  
<213> Artificial sequence

<220>  
<223> Natriuretic peptide

<220>  
<221> MISC\_FEATURE  
<222> (1)..(1)  
<223> Xaa may be any naturally occurring amino acid and may be present or absent

<220>  
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<222> (2)..(2)  
<223> Xaa may be any naturally occurring amino acid and may be present or absent

<220>  
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<222> (3)..(3)  
<223> Xaa may be any naturally occurring amino acid and may be present or absent

<220>  
<221> MISC\_FEATURE  
<222> (4)..(4)  
<223> Xaa may be any naturally occurring amino acid and may be present

or absent

<220>  
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<222> (5)..(5)  
<223> Xaa may be any naturally occurring amino acid and may be present  
or absent

<220>  
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<222> (6)..(6)  
<223> Xaa may be any naturally occurring amino acid and may be present  
or absent

<220>  
<221> MISC\_FEATURE  
<222> (7)..(7)  
<223> Xaa may be any naturally occurring amino acid and may be present  
or absent

<220>  
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<222> (8)..(8)  
<223> Xaa may be any naturally occurring amino acid and may be present  
or absent

<220>  
<221> MISC\_FEATURE  
<222> (9)..(9)  
<223> Xaa may be any naturally occurring amino acid and may be present  
or absent

<220>  
<221> MISC\_FEATURE  
<222> (10)..(10)  
<223> Xaa may be any naturally occurring amino acid and may be present  
or absent

<400> 108

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Cys Phe Gly Arg Arg Met  
1 5 10 15

Asp Arg Ile Ser Ser Ser Ser Gly Leu Gly Cys Arg Val Leu Arg Arg  
20 25 30

His

<210> 109  
<211> 17  
<212> PRT  
<213> Artificial sequence

<220>  
<223> Natriuretic peptide

<220>  
<221> misc\_feature  
<222> (5)..(5)  
<223> Xaa can be any naturally occurring amino acid

<220>  
<221> MISC\_FEATURE  
<222> (10)..(10)  
<223> Xaa may be Ser or Lys

<220>  
<221> MISC\_FEATURE  
<222> (11)..(11)  
<223> Xaa is Ser and may be present or absent

<220>  
<221> MISC\_FEATURE  
<222> (12)..(12)  
<223> Xaa is Ser and may be present or absent

<220>  
<221> MISC\_FEATURE  
<222> (13)..(13)  
<223> Xaa is Ser and may be present or absent

<400> 109

Cys Phe Gly Arg Xaa Met Asp Arg Ile Xaa Xaa Xaa Xaa Gly Leu Gly  
1 5 10 15

Cys

<210> 110  
<211> 32  
<212> PRT  
<213> Artificial sequence

<220>  
<223> Natriuretic peptide

<220>  
<221> MISC\_FEATURE  
<222> (30)..(30)  
<223> Xaa is not Arg

<400> 110

Ser Pro Lys Met Val Gln Gly Ser Gly Cys Phe Gly Arg Lys Met Asp  
1 5 10 15

Arg Ile Ser Ser Ser Ser Gly Leu Gly Cys Lys Val Arg Xaa Arg His  
 20 25 30

<210> 111  
 <211> 32  
 <212> PRT  
 <213> Artificial sequence

<220>  
 <223> Natriuretic peptide

<220>  
 <221> MISC\_FEATURE  
 <222> (27)..(27)  
 <223> Xaa is not Lys

<400> 111

Ser Pro Lys Met Val Gln Gly Ser Gly Cys Phe Gly Arg Lys Met Asp  
 1 5 10 15

Arg Ile Ser Ser Ser Ser Gly Leu Gly Cys Xaa Val Leu Arg Arg His  
 20 25 30

<210> 112  
 <211> 33  
 <212> PRT  
 <213> Artificial sequence

<220>  
 <223> Natriuretic peptide

<220>  
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 <222> (33)..(33)  
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<400> 112

Ser Pro Lys Met Val Gln Gly Ser Gly Cys Phe Gly Arg Lys Met Asp  
 1 5 10 15

Arg Ile Ser Ser Ser Ser Gly Leu Gly Cys Lys Val Leu Arg Arg His  
 20 25 30

Xaa

<210> 113  
 <211> 26  
 <212> PRT  
 <213> Artificial sequence

<220>  
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<220>  
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 <222> (14)..(14)  
 <223> Xaa is not Lys

<220>  
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 <223> Xaa may be Gly, Met, Leu, Phe, Ile, or a conservative substitution thereof

<220>  
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 <223> Xaa may be Leu, Trp, Tyr, Phe, or a conservative substitution thereof

<220>  
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 <223> Xaa may be Gly, Arg, or a conservative substitution thereof

<400> 113

Ser	Pro	Xaa	Met	Val	Gln	Gly	Ser	Gly	Cys	Phe	Gly	Arg	Xaa	Met	Asp
1				5				10					15		

Arg	Ile	Ser	Ser	Ser	Ser	Xaa	Xaa	Xaa	Cys
			20				25		

<210> 114  
 <211> 23  
 <212> PRT  
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<220>  
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<220>



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 <220>  
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 <222> (12)..(12)  
 <223> Xaa may be Lys, Asn, Arg, Ser, Asp, or Pro  
  
 <220>  
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 <222> (12)..(12)  
 <223> Methylation if Xaa is Asn  
  
 <220>  
 <221> MISC\_FEATURE  
 <222> (17)..(17)  
 <223> Xaa is not Gly  
  
 <220>  
 <221> MOD\_RES  
 <222> (17)..(17)  
 <223> Xaa may be Orn, Har, p-amidinophenyl Ala, or Ile  
  
 <400> 114

Lys Cys Phe Lys Gly Lys Asn Asp Arg Xaa Lys Xaa Gln Ser Gly Leu  
 1 5 10 15

Xaa Cys Asn Ser Phe Lys Tyr  
 20

<210> 115  
 <211> 195  
 <212> PRT  
 <213> Artificial sequence

<220>  
 <223> BNP pro-pentapeptide

<400> 115

His His His His His His Glu Gly Asp Arg Arg Ser Pro Lys Met Val  
 1 5 10 15

Gln Gly Ser Gly Cys Phe Gly Arg Lys Met Asp Arg Ile Ser Ser Ser  
 20 25 30

Ser Gly Leu Gly Cys Lys Val Leu Arg Arg His Arg Arg Asp Ala Glu  
 35 40 45

Asp Ser Pro Lys Met Val Gln Gly Ser Gly Cys Phe Gly Arg Lys Met

50                                      55                                      60  
 Asp Arg Ile Ser Ser Ser Ser Gly Leu Gly Cys Lys Val Leu Arg Arg  
 65                                      70                                      75                                      80  
 His Arg Arg Asp Ala Glu Asp Ser Pro Lys Met Val Gln Gly Ser Gly  
                                     85                                      90                                      95  
 Cys Phe Gly Arg Lys Met Asp Arg Ile Ser Ser Ser Ser Gly Leu Gly  
                                     100                                      105                                      110  
 Cys Lys Val Leu Arg Arg His Arg Arg Asp Ala Glu Asp Ser Pro Lys  
                                     115                                      120                                      125  
 Met Val Gln Gly Ser Gly Cys Phe Gly Arg Lys Met Asp Arg Ile Ser  
                                     130                                      135                                      140  
 Ser Ser Ser Gly Leu Gly Cys Lys Val Leu Arg Arg His Arg Arg Asp  
 145                                      150                                      155                                      160  
 Ala Glu Asp Ser Pro Lys Met Val Gln Gly Ser Gly Cys Phe Gly Arg  
                                     165                                      170                                      175  
 Lys Met Asp Arg Ile Ser Ser Ser Ser Gly Leu Gly Cys Lys Val Leu  
                                     180                                      185                                      190  
 Arg Arg His  
                                     195

<210> 116  
 <211> 29  
 <212> PRT  
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<220>  
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 <223> Xaa may be Lys, Arg, or Gly, must be Lys if amino acids 13 and 26  
                                     are not Lys

<220>  
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<223> Xaa may be Lys, Arg, or Gly, must be Lys if amino acids 2 and 26 are not Lys

<220>

<221> MISC\_FEATURE

<222> (26)..(26)

<223> Xaa may be Lys, Arg, or Gly, must be Lys if amino acids 2 and 13 are not Lys

<400> 116

Pro	Xaa	Met	Val	Gln	Gly	Ser	Gly	Cys	Phe	Gly	Arg	Xaa	Met	Asp	Arg
1				5					10					15	

Ile	Ser	Ser	Ser	Ser	Gly	Leu	Gly	Cys	Xaa	Val	Leu	Arg
			20				25					

<210> 117

<211> 37

<212> PRT

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<220>

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<223> Xaa may be any naturally occurring amino acid, and may be present or absent

<220>

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<222> (2)..(2)

<223> Xaa may be any naturally occurring amino acid, and may be present or absent

<220>

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<223> Xaa may be any naturally occurring amino acid, and may be present or absent

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<222> (4)..(4)

<223> Xaa may be any naturally occurring amino acid, and may be present or absent

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<222> (5)..(5)

<223> Xaa may be any naturally occurring amino acid, and may be present or absent

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<220>  
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<220>  
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 <222> (10)..(10)  
 <223> Xaa can be any naturally occurring amino acid

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 <222> (11)..(27)  
 <223> Disulfide bond may be present or absent

<220>  
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 <222> (15)..(15)  
 <223> Xaa can be any naturally occurring amino acid

<220>  
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 <223> Xaa can be any naturally occurring amino acid

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 or absent

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 or absent

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 or absent

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 or absent

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 or absent

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 <223> Xaa may be any naturally occurring amino acid, and may be present  
 or absent

<400> 117

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Cys Phe Gly Arg Xaa Met  
 1 5 10 15

Asp Arg Ile Ser Ser Ser Ser Gly Leu Gly Cys Xaa Xaa Xaa Xaa Xaa  
 20 25 30

Xaa Xaa Xaa Xaa Xaa  
 35

<210> 118

<211> 4  
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<220>  
<223> Natriuretic peptide sequence

<400> 118

Gln Gly Ser Gly  
1

<210> 119  
<211> 5  
<212> PRT  
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<220>  
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<400> 119

Val Gln Gly Ser Gly  
1 5

<210> 120  
<211> 6  
<212> PRT  
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<220>  
<223> Natriuretic peptide sequence

<400> 120

Met Val Gln Gly Ser Gly  
1 5

<210> 121  
<211> 8  
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<220>  
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<400> 121

Pro Lys Met Val Gln Gly Ser Gly  
1 5

<210> 122  
<211> 9

<212> PRT  
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<220>  
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<400> 122

Ser Pro Lys Met Val Gln Gly Ser Gly  
1 5

<210> 123  
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<220>  
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<400> 123

Ser Pro Lys Met Val Gln Gly Ser Gly Cys Phe Gly Arg Lys Met Asp  
1 5 10 15

Arg Ile Ser Ser Ser Ser Gly Leu Gly Cys Lys Val Leu  
20 25

<210> 124  
<211> 26  
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<220>  
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<400> 124

Ser Pro Lys Met Val Gln Gly Ser Gly Cys Phe Gly Arg Lys Met Asp  
1 5 10 15

Arg Ile Ser Ser Ser Ser Gly Leu Gly Cys  
20 25

<210> 125  
<211> 9  
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<220>  
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<220>  
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<400> 125

Ser Pro Xaa Met Val Gln Gly Ser Gly  
 1 5

<210> 126  
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<220>  
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 <223> Xaa may be Lys, Gly, or Arg

<220>  
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 <222> (25)..(25)  
 <223> Xaa may be Lys, Gly, or Arg

<400> 126

Xaa Met Val Gln Gly Ser Gly Cys Phe Gly Arg Xaa Met Asp Arg Ile  
 1 5 10 15

Ser Ser Ser Ser Gly Leu Gly Cys Xaa  
 20 25

<210> 127  
 <211> 24  
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 <222> (8)..(8)



<220>  
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<222> (24)..(24)

<400> 127

Lys Met Val Gln Gly Ser Gly Cys Phe Gly Arg Lys Met Asp Arg Ile  
1 5 10 15

Ser Ser Ser Ser Gly Leu Gly Cys  
20

<210> 128  
<211> 17  
<212> PRT  
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<220>  
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Cys Phe Gly Arg Lys Met Asp Arg Ile Ser Ser Ser Ser Gly Leu Gly  
1 5 10 15

Cys

<210> 129  
<211> 18  
<212> PRT  
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<220>  
<223> Natriuretic peptide

<400> 129

Cys Phe Gly Arg Lys Met Asp Arg Ile Ser Ser Ser Ser Gly Leu Gly  
1 5 10 15

Cys Lys

<210> 130  
<211> 23  
<212> PRT  
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<220>

<223> Natriuretic peptide

<400> 130

Cys Phe Gly Arg Lys Met Asp Arg Ile Ser Ser Ser Ser Gly Leu Gly  
1 5 10 15

Cys Lys Val Leu Arg Arg His  
20

<210> 131

<211> 32

<212> PRT

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<221> misc\_feature

<222> (27)..(27)

<223> Xaa can be any naturally occurring amino acid

<400> 131

Ser Pro Lys Met Val Gln Gly Ser Gly Cys Phe Gly Arg Xaa Met Asp  
1 5 10 15

Arg Ile Ser Ser Ser Ser Gly Leu Gly Cys Xaa Val Leu Arg Arg His  
20 25 30

<210> 132

<211> 17

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<221> misc\_feature

<222> (15)..(15)  
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<400> 132

Cys Phe Gly Arg Xaa Met Asp Arg Ile Ser Ser Ser Ser Gly Xaa Gly  
1 5 10 15

Cys

<210> 133  
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<220>  
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<400> 133

Ser Pro Xaa Met Val Gln Gly Ser Gly  
1 5

<210> 134  
<211> 6  
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<220>  
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<220>  
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<222> (1)..(1)  
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<400> 134

Xaa Val Leu Arg Arg His  
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<210> 135  
<211> 28  
<212> PRT  
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or absent

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<400> 135

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Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Cys Phe Gly Arg Xaa Met Asp
1           5           10          15

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Arg Ile Gly Leu Gly Cys Xaa Xaa Xaa Xaa Xaa Xaa
20          25

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<210> 136
<211> 37
<212> PRT
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<223> Xaa may be any naturally occurring amino acid, and may be present or absent

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<223> Xaa may be any naturally occurring amino acid, and may be present or absent

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<223> Xaa may be any naturally occurring amino acid, and maybe present or absent

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<222> (9)..(9)

<223> Xaa may be any naturally occurring amino acid, and may be present or absent

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or absent

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      or absent

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      or absent

<400> 136

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Cys Phe Gly Arg Xaa Met
1          5          10          15

Asp Arg Ile Xaa Xaa Xaa Xaa Gly Leu Gly Cys Xaa Xaa Xaa Xaa Xaa
20          25          30

Xaa Xaa Xaa Xaa Xaa
35

<210> 137
<211> 32
<212> PRT
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<220>
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<220>  
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<220>  
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 <223> Xaa may be Arg or His

<400> 137

Ser	Pro	Xaa	Met	Met	His	Xaa	Ser	Gly	Cys	Phe	Gly	Arg	Arg	Leu	Asp
1				5					10					15	

Arg	Ile	Gly	Ser	Leu	Ser	Gly	Leu	Gly	Cys	Asn	Val	Leu	Arg	Xaa	Tyr
			20					25					30		